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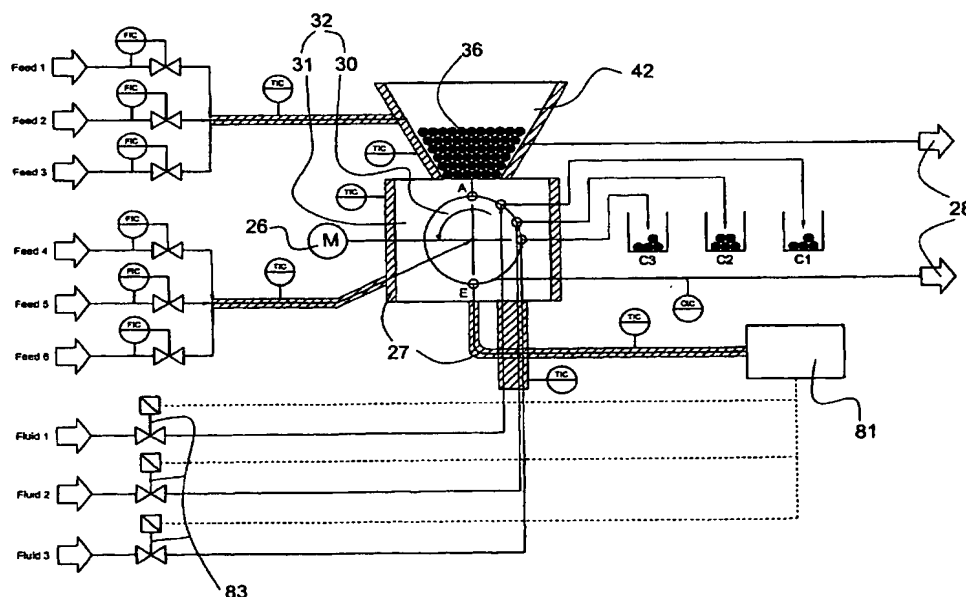
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[Continued on next page]

(54) Title: **DEVICE FOR THE CONTINUOUS TESTING OF MATERIALS**



(57) Abstract: The present invention relates to a device for the continuous testing of at least two building blocks, which are part of a combinatorial material library. Thereby, said device is in particular characterized in that it comprises at least the following constituent parts: (i) at least one spatially stationary component with at least one means for supply, (ii) at least one spatially non-stationary component as well as (iii) at least one unit for the uptake of a building block. Thereby, at least one building block moves spatially relative to the at least one other building block during the testing.



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- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

International Application No

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01J G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/40334 A (PERKIN ELMER CORP) 13 July 2000 (2000-07-13) page 41, line 10 - line 14 page 29, line 27 - page 30, line 17; figure 17	1, 20, 22
X	DE 202 09 129 U (HTI ENTWICKLUNGSGMBH) 2 October 2002 (2002-10-02) the whole document	1, 20, 22
X	WO 00/40330 A (HEIMBERG WOLFGANG ; WEICHELGARTNER MICHAEL (DE); MWG BIOTECH AG (DE)) 13 July 2000 (2000-07-13) claims 1-21; figures 1-4	1, 20, 22
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

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International Application No.

PCT/EP 03/14021

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>BAIER J ET AL: "SYNTHESIS AND PURIFICATION IN A SINGLE COLUMN ON A HIGH-THROUGHPUT AUTOMATED OLIGONUCLEOTIDE PRODUCTION SYSTEM"</p> <p>BIOTECHNIQUES, EATON PUBLISHING, NATICK, US,</p> <p>vol. 20, 1996, pages 298-303, XP000857679</p> <p>ISSN: 0736-6205</p> <p>figures 2,3</p>	1,20,22
P,X, L	<p>-----</p> <p>WO 03/047742 A (CROSS ALEXANDER ; KLEIN JENS (DE); VIETZE UWE (DE); ZECH TORSTEN (DE);) 12 June 2003 (2003-06-12)</p> <p>(L: priority)</p> <p>page 48, line 4 - page 49, line 13;</p> <p>figures 9,10,16</p>	1,20,22
X	<p>-----</p> <p>NAYDENOV V ET AL: "Spherical silica macrostructures containing vanadium and tungsten oxides assembled by the resin templating method"</p> <p>MICROPOROUS AND MESOPOROUS MATERIALS, ELSEVIER SCIENCE PUBLISHING, NEW YORK, US,</p> <p>vol. 55, no. 3,</p> <p>30 September 2002 (2002-09-30), pages 253-263, XP004380668</p> <p>ISSN: 1387-1811</p> <p>the whole document</p>	21
X	<p>-----</p> <p>US 5 132 480 A (KUBOTA OSAMU ET AL)</p> <p>21 July 1992 (1992-07-21)</p> <p>the whole document</p> <p>-----</p>	21

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP 03/14021

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1 (in part), 2-19, 22 (in part), 23
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1 (in part), 2-19, 22 (in part), 23

Present claims are expressed in extremely broad and unclear terms. This is exacerbated by the very broad definitions of these terms. As a result of the wording of the claims being unclear and very broadly defined, present claims relate to an extremely large number of possible devices. In fact, the claims contain so many options, variables and possible permutations that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. An attempt has been made to identify and define a "core" of the invention (based on claims, description and figures) which was enough clear, concise and supported to carry out a meaningful search. Consequently, the search has been carried out for Claim 1 and 22 in which (i) the non-stationary body is a body which can be rotated around an axis (wording from claim 6), and (ii) the non-stationary component is formed in a manner that the unit for the uptake of a building block, which is embedded therein, possesses an open side, which meets by moving the component relative to the stationary component the means of supply, which is located inside of said component (wording from page 39, line 26-30). Also claims 20 and 21 have been searched.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/14021

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0040334	A	13-07-2000	AU 2722300 A	24-07-2000
			CA 2358566 A1	13-07-2000
			EP 1148947 A1	31-10-2001
			JP 2002540382 T	26-11-2002
			WO 0040334 A1	13-07-2000
			US 6635470 B1	21-10-2003
			US 6649404 B1	18-11-2003
			US 2003232381 A1	18-12-2003
			US 6573089 B1	03-06-2003
DE 20209129	U	02-10-2002	DE 20209129 U1	02-10-2002
WO 0040330	A	13-07-2000	AU 1981300 A	24-07-2000
			CN 1117613 B	13-08-2003
			DE 19960837 A1	06-07-2000
			DE 59906395 D1	28-08-2003
			WO 0040330 A2	13-07-2000
			EP 1144106 A2	17-10-2001
			JP 2002534246 T	15-10-2002
			NZ 512726 A	28-03-2003
WO 03047742	A	12-06-2003	DE 10159189 A1	26-06-2003
			WO 03047742 A2	12-06-2003
US 5132480	A	21-07-1992	JP 2206686 A	16-08-1990
			JP 2922210 B2	19-07-1999
			JP 2304033 A	17-12-1990
			JP 2716523 B2	18-02-1998